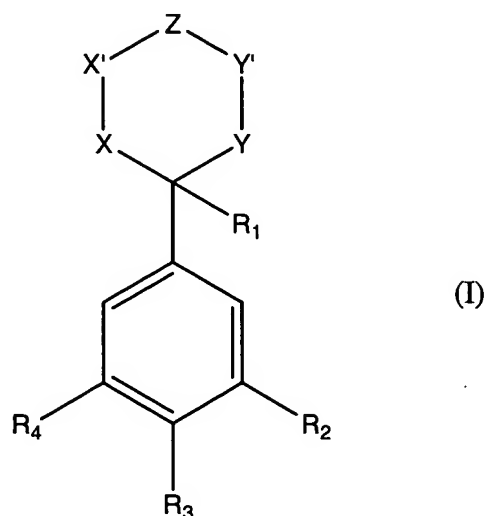


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) A compound of formula (I), or a pharmaceutically acceptable salt or prodrug thereof



wherein X and X' are independently selected from $-\text{C}(\text{R}_5)_2-$, $-\text{O}-$, $-\text{S}-$, $-\text{N}(\text{R}_5)-$, or taken together form $-\text{C}(\text{R}_5)=\text{C}(\text{R}_5)-$, $-\text{C}(\text{R}_5)=\text{N}-$, $-\text{N}=\text{C}(\text{R}_5)-$, $-\text{N}(\text{R}_5)-\text{N}(\text{R}_5)-$ or $-\text{N}=\text{N}-$;

Y and Y' are independently selected from $-\text{C}(\text{R}_5)_2-$, $-\text{O}-$, $-\text{S}-$, $-\text{N}(\text{R}_5)-$, or taken together form $-\text{C}(\text{R}_5)=\text{C}(\text{R}_5)-$, $-\text{C}(\text{R}_5)=\text{N}-$, $-\text{N}=\text{C}(\text{R}_5)-$, $-\text{N}(\text{R}_5)-\text{N}(\text{R}_5)-$ or $-\text{N}=\text{N}-$;

Z is $-\text{C}(\text{R}_5)_2-$, $-\text{O}-$, $-\text{S}-$ or $-\text{N}(\text{R}_5)-$, or forms a covalent single or double bond between X' and Y', or Z together with X' or Y' forms $-\text{C}(\text{R}_5)=\text{C}(\text{R}_5)-$, $-\text{C}(\text{R}_5)=\text{N}-$, $-\text{N}=\text{C}(\text{R}_5)-$, $-\text{N}(\text{R}_5)-\text{N}(\text{R}_5)-$ or $-\text{N}=\text{N}-$;

wherein when Z is $-\text{O}-$, $-\text{S}-$ or $-\text{N}(\text{R}_5)-$, X' and Y' are $-\text{C}(\text{R}_5)_2-$;

when X is $-\text{O}-$, $-\text{S}-$ or $-\text{N}(\text{R}_5)-$, X' is $-\text{C}(\text{R}_5)_2-$;

when Y is -O-, -S- or -N(R₅)-, Y' is -C(R₅)₂-; or

X or Y together with the carbon atom bearing the phenyl group form a double bond wherein which ever of X or Y forms part of the double bond is selected from -C(R₅)- and -N-;

R₁ is selected from hydrogen, C₁₋₂₀alkyl, C₂₋₂₀alkenyl, C₂₋₂₀alkynyl, (A)_nC(O)R₆, (A)_nC(S)R₆, (A)_nS(O)R₆, (A)_nS(O)₂R₆, (A)_nOR₇, (A)_nSR₇, (A)_nN(R₈), (A)_nC(=NR₉)R₁₀ and (A)_nR₁₁, or when X or Y together with the carbon atom bearing the phenyl group form a double bond, R₁ is absent;

R₂ and R₄ are independently selected from hydrogen, C₁₋₃alkyl and (A)_mR₁₂;

R₃ is selected from C₁₋₃alkyl, (A)_mR₁₂, (A)_maryl and (A)_mheterocyclyl;

R₅ is selected from hydrogen, C₁₋₂₀alkyl, C₂₋₂₀alkenyl, C₂₋₂₀alkynyl, (A)_nC(O)R₆, (A)_nC(S)R₆, (A)_nS(O)R₆, (A)_nS(O)₂R₆, (A)_nOR₇, (A)_nSR₇, (A)_pN(R₈), (A)_nC(=NR₉)R₁₀ and (A)_nR₁₁;

R₆ is selected from hydrogen, C₁₋₂₀alkyl, C₂₋₂₀alkenyl, C₂₋₂₀alkynyl, OH, OC₁₋₁₀alkyl, OC₂₋₁₀alkenyl, OC₂₋₁₀alkynyl, O(A)_qR₁₁, SH, SC₁₋₁₀alkyl, SC₂₋₁₀alkenyl, SC₂₋₁₀alkynyl, S(A)_qR₁₁, N(R₁₃)₂, [NH-CH(R₁₄)C(O)]_s-OH, [NH-CH(R₁₄)C(O)]_s-OC₁₋₃alkyl, [sugar]_s and (A)_qR₁₁;

R₇ is selected from hydrogen, C₁₋₂₀alkyl, C₂₋₂₀alkenyl, C₂₋₂₀alkynyl, (A)_qR₁₁, C(O)H, C(O)C₁₋₁₀alkyl, C(O)C₂₋₁₀alkenyl, C(O)C₂₋₁₀alkynyl, C(O)-aryl, C(O)(A)_qR₁₁, C(O)₂H, C(O)₂C₁₋₁₀alkyl, C(O)₂C₂₋₁₀alkenyl, C(O)₂C₂₋₁₀alkynyl, C(O)₂-aryl, C(O)₂(A)_qR₁₁, C(S)H, C(S)C₁₋₁₀alkyl, C(S)C₂₋₁₀alkenyl, C(S)C₂₋₁₀alkynyl, C(S)-aryl, C(S)(A)_qR₁₁, C(S)OH, C(S)OC₁₋₁₀alkyl, C(S)OC₂₋₁₀alkenyl, C(S)OC₂₋₁₀alkynyl, C(S)O-aryl, C(S)O(A)_qR₁₁, S(O)_tH, S(O)_tC₁₋₁₀alkyl, S(O)_tC₂₋₁₀alkenyl, S(O)_tC₂₋₁₀alkynyl, S(O)_t-aryl, S(O)_t(A)_qR₁₁, [C(O)CH(R₁₄)NH]_s-H, [C(O)CH(R₁₄)NH]_s-C₁₋₁₀alkyl, [C(O)CH(R₁₄)NH]_s-C₂₋₁₀alkenyl, [C(O)CH(R₁₄)NH]_s-C₂₋₁₀alkynyl, [C(O)CH(R₁₄)NH]_s-aryl, [C(O)CH(R₁₄)NH]_s-(A)_qR₁₁ and [sugar]_s;

each R₈ is independently selected from R₇ and NHC(=NR₁₅)NH₂;

R₉ is selected from hydrogen and C₁₋₆alkyl;

R₁₀ is selected from C₁₋₆alkyl, NH₂, NH(C₁₋₃alkyl), N(C₁₋₃alkyl)₂, OH, OC₁₋₃alkyl, SH and SC₁₋₃alkyl;

R₁₁ is selected from OH, OC₁₋₆alkyl, OC₁₋₃alkyl-O-C₁₋₃alkyl, O-aryl, O-heterocyclyl, O[C(O)CH(R₁₄)NH]_sH, [sugar]_s, SH, SC₁₋₆alkyl, SC₁₋₃alkyl-O-C₁₋₃alkyl, S-aryl, S-heterocyclyl, S[C(O)CH(R₁₄)NH]_sH, halo, N(R₁₅)₂, C(O)R₁₆, CN, C(R₁₇)₃, aryl and heterocyclyl;

R₁₂ is selected from OH, SH, NH₂, halo, NO₂, C(R₁₇)₃, OC(R₁₇)₃ and CN;

each R₁₃ is independently selected from hydrogen, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl and (A)_qR₁₁;

R₁₄ is the characterising group of an amino acid;

each R₁₅ is independently selected from hydrogen, C₁₋₆alkyl, C₁₋₃alkoxyC₁₋₃alkyl, aryl and heterocyclyl;

R₁₆ is selected from C₁₋₃alkyl, OH, C₁₋₃alkoxy, aryl, aryloxy, heterocyclyl and heterocyclxy;

each R₁₇ is independently selected from hydrogen and halogen;

A is optionally substituted methylene wherein when n > 1, any two adjacent A groups are optionally interrupted by -O-, -S- or -N(R₁₅)-;

where n is 0 or an integer selected from 1 to 20;

m is 0 or an integer selected from 1 to 3;

p is an integer selected from 1 to 20;

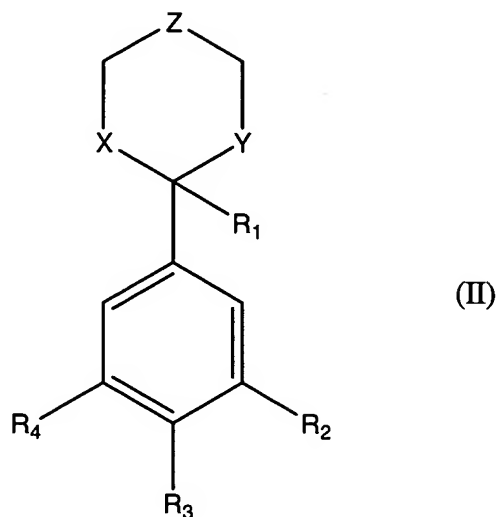
q is an integer selected from 1 to 10

s is an integer selected from 1 to 5;

t is an integer selected from 1 or 2; and

wherein each alkyl, alkenyl, alkynyl, aryl and heterocyclyl may be optionally substituted.

2. (original) A compound according to claim 1 of formula (II), or a pharmaceutically acceptable salt or prodrug thereof



wherein X and Y are independently selected from $-O-$, $-S-$, $-N(R_5)-$ and $-C(R_5)_2-$;

Z is $-C(R_5)_2-$ or is a covalent bond between adjacent methylene groups;

R_1 is selected from hydrogen, C_{1-20} alkyl, C_{2-20} alkenyl, C_{2-20} alkynyl, $(A)_n C(O)R_6$, $(A)_n C(S)R_6$, $(A)_n S(O)R_6$, $(A)_n S(O)_2R_6$, $(A)_n OR_7$, $(A)_n SR_7$, $(A)_n N(R_8)$, $(A)_n C(=NR_9)R_{10}$ and $(A)_n R_{11}$;

R_2 and R_4 are independently selected from hydrogen, C_{1-3} alkyl and $(A)_m R_{12}$;

R_3 is selected from C_{1-3} alkyl, $(A)_m R_{12}$, $(A)_m$ aryl and $(A)_m$ heterocyclyl;

R_5 is selected from hydrogen, C_{1-20} alkyl, C_{2-20} alkenyl, C_{2-20} alkynyl, $(A)_n C(O)R_6$, $(A)_n C(S)R_6$, $(A)_n S(O)R_6$, $(A)_n S(O)_2R_6$, $(A)_n OR_7$, $(A)_n SR_7$, $(A)_p N(R_8)$, $(A)_n C(=NR_9)R_{10}$ and $(A)_n R_{11}$;

R_6 is selected from hydrogen, C_{1-20} alkyl, C_{2-20} alkenyl, C_{2-20} alkynyl, OH, OC_{1-10} alkyl, OC_{2-10} alkenyl, OC_{2-10} alkynyl, $O(A)_q R_{11}$, SH, SC_{1-10} alkyl, SC_{2-10} alkenyl, SC_{2-10} alkynyl, $S(A)_q R_{11}$, $N(R_{13})_2$, $[NH-CH(R_{14})C(O)]_s-OH$, $[NH-CH(R_{14})C(O)]_s-OC_{1-3}$ alkyl, $[sugar]_s$ and $(A)_q R_{11}$;

R₇ is selected from hydrogen, C₁₋₂₀alkyl, C₂₋₂₀alkenyl, C₂₋₂₀alkynyl, (A)_qR₁₁, C(O)H, C(O)C₁₋₁₀alkyl, C(O)C₂₋₁₀alkenyl, C(O)C₂₋₁₀alkynyl, C(O)-aryl, C(O)(A)_qR₁₁, C(O)₂H, C(O)₂C₁₋₁₀alkyl, C(O)₂C₂₋₁₀alkenyl, C(O)₂C₂₋₁₀alkynyl, C(O)₂-aryl, C(O)₂(A)_qR₁₁, C(S)H, C(S)C₁₋₁₀alkyl, C(S)C₂₋₁₀alkenyl, C(S)C₂₋₁₀alkynyl, C(S)-aryl, C(S)(A)_qR₁₁, C(S)OH, C(S)OC₁₋₁₀alkyl, C(S)OC₂₋₁₀alkenyl, C(S)OC₂₋₁₀alkynyl, C(S)O-aryl, C(S)O(A)_qR₁₁, S(O)_tH, S(O)_tC₁₋₁₀alkyl, S(O)_tC₂₋₁₀alkenyl, S(O)_tC₂₋₁₀alkynyl, S(O)_t-aryl, S(O)_t(A)_qR₁₁, [C(O)CH(R₁₄)NH]_s-H, [C(O)CH(R₁₄)NH]_s-C₁₋₁₀alkyl, [C(O)CH(R₁₄)NH]_s-C₂₋₁₀alkenyl, [C(O)CH(R₁₄)NH]_s-C₂₋₁₀alkynyl, [C(O)CH(R₁₄)NH]_s-aryl, [C(O)CH(R₁₄)NH]_s-(A)_qR₁₁ and [sugar]_s;

each R₈ is independently selected from R₇ and NHC(=NR₁₅)NH₂;

R₉ is selected from hydrogen and C₁₋₆alkyl;

R₁₀ is selected from C₁₋₆alkyl, NH₂, NH(C₁₋₃alkyl), N(C₁₋₃alkyl)₂, OH, OC₁₋₃alkyl, SH and SC₁₋₃alkyl;

R₁₁ is selected from OH, OC₁₋₆alkyl, OC₁₋₃alkyl-O-C₁₋₃alkyl, O-aryl, O-heterocyclyl, O[C(O)CH(R₁₄)NH]_sH, [sugar]_s, SH, SC₁₋₆alkyl, SC₁₋₃alkyl-O-C₁₋₃alkyl, S-aryl, S-heterocyclyl, S[C(O)CH(R₁₄)NH]_sH, halo, N(R₁₅)₂, C(O)R₁₆, CN, C(R₁₇)₃, aryl and heterocyclyl;

R₁₂ is selected from OH, SH, NH₂, halo, NO₂, C(R₁₇)₃, OC(R₁₇)₃ and CN;

each R₁₃ is independently selected from hydrogen, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl and (A)_qR₁₁;

R₁₄ is the characterising group of an amino acid;

each R₁₅ is independently selected from hydrogen, C₁₋₆alkyl, C₁₋₃alkoxyC₁₋₃alkyl, aryl and heterocyclyl;

R₁₆ is selected from C₁₋₃alkyl, OH, C₁₋₃alkoxy, aryl, aryloxy, heterocyclyl and heterocyclxyloxy;

each R₁₇ is independently selected from hydrogen and halogen;

A is optionally substituted methylene wherein when $n > 1$, any two adjacent A groups are optionally interrupted by $-O-$, $-S-$ or $-N(R_{15})-$;

where n is 0 or an integer selected from 1 to 20;

m is 0 or an integer selected from 1 to 3;

p is an integer selected from 1 to 20;

q is an integer selected from 1 to 10

s is an integer selected from 1 to 5;

t is an integer selected from 1 or 2; and

wherein each alkyl, alkenyl, alkynyl, aryl and heterocyclyl may be optionally substituted.

3. (original) A compound according to claim 2 wherein

X is $-O-$, $-S-$, $-NH-$ or $-CH_2-$;

Y is $-O-$, $-S-$ or $-NR_5-$;

Z forms a covalent bond between adjacent methylene groups;

R_1 is selected from C_{1-20} alkyl, C_{1-20} alkenyl, $O-(A)_qO-C_{1-6}$ alkyl, $O-(A)_q$ -heterocyclyl, $O-(A)_q$ -sugar, $O-(A)_qO[C(O)CH(R_{14})NH]_s-H$, $(A)_nOH$, $(A)_nOC_{1-20}$ alkyl, $(A)_nOC_{1-20}$ alkenyl, $(A)_nOC(O)C_{1-20}$ alkyl, $(A)_nOC(O)C_{1-20}$ alkenyl, $(A)_nOC(O)aryl$, $(A)_nO[C(O)CH(R_{14})NH]_s-H$, $(A)_nO[sugar]_s$, $(A)_nNHC_{1-20}$ alkyl, $(A)_nN(C_{1-20}alkyl)_2$, $(A)_nNHC_{1-20}$ alkenyl, $(A)_nN(C_{1-20}alkenyl)_2$, $(A)_nNHC(O)C_{1-20}$ alkyl, $(A)_nNHC(O)C_{1-20}$ alkenyl, $(A)_nNHC(O)aryl$, $(A)_nNH[C(O)CH(R_{14})NH]_s-H$, $(A)_nNH-[sugar]_s$, $(A)_nSO_3H$, $(A)_nSO_3C_{1-20}alkyl$, $(A)_nSO_3C_{1-20}alkenyl$, $(A)_nC(O)C_{1-20}alkyl$, $(A)_nC(O)C_{1-20}alkenyl$, $(A)_nCO_2H$, $(A)_nCO_2C_{1-20}alkyl$, $(A)_nCO_2C_{1-20}alkenyl$, $(A)_nC(O)NHC_{1-20}alkyl$, $(A)_nC(O)N(C_{1-20}alkyl)_2$, $(A)_nC(O)NHC_{1-20}alkenyl$, $(A)_nC(O)N(C_{1-20}alkenyl)_2$, $(A)_nC(O)[NHCH(R_{14})C(O)]_s-OH$, $(A)_nC(O)[sugar]_s$; wherein A is methylene optionally substituted one or two times with a group that is independently selected from C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, halogen, OH, OC_{1-6} alkyl, CO_2H , CO_2C_{1-3} alkyl, NH_2 , NHC_{1-3} alkyl, $-N(C_{1-3}alkyl)_2$, CN, NO_2 , aryl or heterocyclyl; R_{14} is the

characterising group of an amino acid, n is 0 or an integer from 1 to 20 and s is an integer from 1 to 5;

R₂ is hydrogen, C₁₋₃alkyl, OH, SH, NH₂, -NO₂, CF₃, halo or -CN;

R₃ is hydrogen, C₁₋₃alkyl, -(CH₂)_mNH₂, -(CH₂)_m-OH, -(CH₂)_m-CF₃, -(CH₂)_m-SH or a 5 or 6 membered heterocyclic group, wherein m is 0 or an integer from 1 to 3;

R₄ is hydrogen, C₁₋₃alkyl, OH, SH, NH₂, NO₂, CF₃, halo or CN;

A is unsubstituted methylene or mono-substituted methylene.

4. (original) A compound according to claim 2 wherein

X is -O-, -S-, -NH-;

Y is -O-, -S- or -N(R₅)-;

Z forms a covalent bond between adjacent methylene groups;

R₁ is C₁-C₂₀alkyl, C₂-C₂₀alkenyl, C₂-C₂₀alkynyl, (A)_nC(O)R₆, -(A)_nC(S)R₆, -(A)_nS(O)R₆, -(A)_nS(O)₂R₆, -(A)_nOR₇, -(A)_nSR₇, -(A)_nN(R₈)₂, (A)_nC(=NR₉)R₁₀ or (A)_nR₁₁ where n, R₆, R₇, R₈, R₉, R₁₀ and R₁₁ are defined above;

R₂ is hydrogen, methyl, OH, OCH₃, SH, NH₂, NO₂, CF₃, halo or CN;

R₃ is C₁₋₃alkyl, -(CH₂)_mNH₂, -(CH₂)_m-OH, -(CH₂)_mSH or heterocyclyl where m is defined above;

R₄ is hydrogen, methyl, OH, OCH₃, SH, NH₂, NO₂, CF₃, halo or CN.

5. (original) A compound according to claim 2 wherein

X is -O- or NH;

Y is -O- or -N(R₁₈)- where R₁₈ is selected from hydrogen, C₁₋₂₀alkyl, C₁₋₂₀alkenyl, C₁₋₂₀alkynyl and (CH₂)_nR₁₁ where R₁₁ and n are defined above;

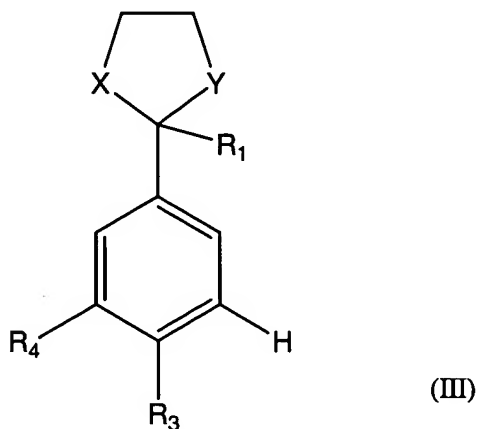
Z forms a covalent bond between adjacent methylene groups;

R_2 is hydrogen, halomethyl, OH, OCH_3 , SH, NH_2 , NO_2 or CN;

R_3 is hydrogen, C_{1-3} alkyl, $(CH_2)_mNH_2$, $(CH_2)_mOH$ or $(CH_2)_mCF_3$ or heterocyclyl where m is defined above;

R_4 is hydrogen, methyl, OH, OCH_3 , SH, NH_2 , NO_2 or CN.

6. (original) A compound according to claim 1 of formula (III)



wherein

X is $-O-$ or $-NH-$;

Y is $-O-$ or $-N(R_{18})-$ where R_{18} is defined above;

R_3 is hydrogen, NH_2 , OH;

R_4 is hydrogen, methyl, OCH_3 , or OH.

7. (original) A compound according to claim 6 wherein R_1 is selected from $(A)_nOR_7$ where n is 0.

8. (original) A compound according to claim 1 wherein

X is $-S-$;

Y is $-N(R_5)-$;

X' is $-C(R_5)_2-$;

Y' is $-\text{C}(\text{R}_5)_2-$;

Z forms a covalent bond between X' and Y'.

9. (original) A compound according to claim 8 wherein

Y is $-\text{NH}-$;

X' is $-\text{CH}_2-$;

Y' is $-\text{CH}_2-$;

R₁ is H.

10. (original) A compound according to claim 1 wherein

X and Y are each $-\text{O}-$;

X' and Y' are each $-\text{C}(\text{R}_5)_2-$;

Z forms a covalent bond between X' and Y'.

11. (original) A compound according to claim 10 wherein

X' and Y' are each $-\text{CH}_2-$; R₁ is H.

12. (original) A compound according to claim 1 wherein

X and X' taken together form $-\text{C}(\text{R}_5)=\text{N}-$;

Y is $-\text{C}(\text{R}_5)-$ and taken together with the carbon atom bearing the phenyl group forms a double bond;

Y' is $-\text{N}(\text{R}_5)-$;

Z forms a covalent bond between X and Y'.

13. (original) A compound according to claim 12 wherein

Y is $-\text{CH}-$;

X is $-\text{CH}-$.

14. (original) A compound according to claim 1 wherein

X and X' taken together form $-\text{C}(\text{R}_5)=\text{N}-$;

Z together with Y' forms $-\text{C}(\text{R}_5)=\text{C}(\text{R}_5)-$;

Y is $-\text{C}(\text{R}_5)-$ and together with the carbon atom bearing the phenyl group forms a double bond.

15. (original) A compound according to claim 14 wherein

X is $-\text{C}(\text{OCH}_3)$;

Z together with Y' forms $-\text{C}(\text{OCH}_3)=\text{CH}-$;

Y is $-\text{CH}-$.

16. (original) A compound according to claim 1 wherein

X' is $-\text{C}(\text{R}_5)_2-$;

Y' is $-\text{C}(\text{R}_5)_2-$;

Z is $-\text{C}(\text{R}_5)_2-$;

X and Y are each $-\text{O}-$.

17. (original) A compound according to claim 16 wherein

X', Y' and Z are each $-\text{CH}_2-$; R_1 is H.

18. (original) A compound according to claim 1 wherein

X and Y are each $-\text{S}-$;

X' and Y' are each $-\text{C}(\text{R}_5)_2-$;

Z forms a covalent bond between X' and Y'.

19. (original) A compound according to claim 18 wherein
X' and Y' are each $-\text{CH}_2-$; R_1 is H.
20. (original) A compound according to claim 1 wherein
X is $-\text{S}-$;
Y is $-\text{O}-$;
X' and Y' are each $-\text{C}(\text{R}_5)_2-$;
Z forms a covalent bond between X' and Y'.
21. (original) A compound according to claim 20 wherein
X' and Y' are each $-\text{CH}_2-$.
22. (original) A compound according to claim 1 wherein
X and X' taken together form $-\text{C}(\text{R}_5)=\text{C}(\text{R}_5)-$;
Z together with Y' forms $-\text{C}(\text{R}_5)=\text{C}(\text{R}_5)-$;
Y is $-\text{C}(\text{R}_5)-$ and together with the carbon atom bearing the phenyl group forms a double bond.
23. (original) A compound according to claim 22 wherein
X and X' taken together form $-\text{CH}=\text{CH}-$;
Z together with Y forms $-\text{CH}=\text{CH}-$;
Y is $-\text{CH}-$.
24. (original) A compound according to claim 1 wherein
Y is $-\text{N}-$ and taken together with the carbon atom bearing the phenyl group forms a double bond;
X is $-\text{O}-$;

X' and Y' are each $-\text{C}(\text{R}_5)_2-$

Z forms a covalent bond between X' and Y'.

25. (original) A compound according to claim 24 wherein

X' and Y' are each $-\text{CH}_2-$.

26. (original) A compound according to claim 1 wherein

X and Y are each $-\text{C}(\text{R}_5)_2-$;

X' and Y' are each $-\text{N}(\text{R}_5)-$;

Z is $\text{C}(\text{R}_5)_2$.

27. (original) A compound according to claim 1 wherein

X is $-\text{O}-$;

Y' is $-\text{N}(\text{R}_5)-$;

X' and Y are each $-\text{C}(\text{R}_5)_2-$.

28. (original) A compound according to claim 1 wherein

X and X' are each $-\text{C}(\text{R}_5)_2-$;

Y is $-\text{N}(\text{R}_5)-$;

Y' is $\text{C}(\text{R}_5)_2-$;

Z forms a covalent bond between X' and Y'.

29. (original) A compound according to claim 1 wherein

X is $-\text{N}(\text{R}_5)-$;

X' is $-\text{C}(\text{R}_5)_2-$;

Y is $-\text{C}(\text{R}_5)_2-$;

Y' is $-N(R_5)-$;

Z forms a covalent bond between X' and Y'.

30. (original) A compound according to claim 1 wherein

X and X' are each $-C(R_5)_2-$

Y is $-C(R_5)_2-$;

Y' is $-N(R_5)-$;

Z is $-C(R_5)_2-$

31. (original) A compound according to claim 1 selected from the group consisting of:

2-(2-hydroxyethoxy)-2-(4-hydroxy-3-methylphenyl)-1,3-dioxolane;

2-(2-hydroxyethoxy)-2-(4-hydroxyphenyl)-1,3-dioxolane;

2-(2-hydroxyethoxy)-2-(3-bromo-4-hydroxy-5-methylphenyl)-1,3-dioxolane;

2-(4-Bromophenyl)-1,3-thiazolane;

2-(4-Methoxyphenyl)-1,3-thiazolane;

4-(1,3-Thiazolidin-2-yl)benzonitrile;

2-(4-Hydroxy-3-methoxyphenyl)-1,3-thiazolane;

2-(3,4-Dimethoxyphenyl)-1,3-thiazolane;

Methyl 4-[2-(4-fluorophenyl)-1,3-dioxolan-2-yl]butanoate;

4-[2-(4-Fluorophenyl)-1,3-dioxolan-2-yl]butan-1-ol;

2-(4'-Bromophenyl)-2-butyl-1,3-dioxolane;

4-(4-Methoxyphenyl)-1-(3-methylbutyl)-1*H*-pyrazole;

1-(3-Methylbutyl)-4-(4-methylphenyl)-1*H*-pyrazole;

2,6-Dimethoxy-3-[4-(trifluoromethoxy)phenyl]pyridine);

2-[4-(2-Thienyl)phenyl]-1,3-thiazolane;

2-Ethyl-2-(4-methoxyphenyl)-1,3-dioxolane;

2-Hexyl-2-(4-methylphenyl)-1,3-dithiolane;

2-Methyl-2-(4-methylphenyl)-1,3-dithiolane;

2-Hexyl-2-(4-methylphenyl)-1,3-dioxolane;

2-(4-Chlorophenyl)-2-methyl-1,3-dioxane;

2-(4-Chlorophenyl)-2-methyl-1,3-dioxolane;

2-Methyl-2-(4-methylphenyl)-1,3-dioxane;

2-Methyl-2-(4-methylphenyl)-1,3-dioxolane;

2-(4-Chlorophenyl)-2-methyl-1,3-dithiolane;

2-(4-Nitrophenyl)-2-methyl-1,3-dioxolane;

2-(4-Nitrophenyl)-2-methyl-1,3-dioxane;

2-(4-Methoxyphenyl)-1,3-oxathiolane;

2-(3,4,5-Trimethoxyphenyl)-1,3-oxathiolane;

2-Methoxy-4-(1,3-oxathiolan-2-yl)phenol;

4-(1,3-Oxathiolan-2-yl)benzonitrile;

2-(4-Bromophenyl)-2-ethyl-1,3-oxathiolane;

4-(5-Methyl-1,3-oxathiolan-2-yl)benzonitrile;

2-(4-Thien-2-ylphenyl)-1,3-oxathiolane;

4-(5-Methyl-2-octyl-1,3-oxathiolan-2-yl)phenol;

2-Fluoro-5-(5-methyl-1,3-oxathiolan-2-yl)benzenecarbonitrile;

4-Methoxy-4'-(trifluoromethoxy)-1,1'-biphenyl;

2,6-Dimethoxy-3-[4-(trifluoromethyl)phenyl]pyridine;

2-(4-bromophenyl)-2-butyl-4-propyl-1,3-oxathiane;

4-(1,3-Dioxolan-2-yl)benzenecarbonitrile;

2-(3,5-Dimethoxyphenyl)-2-hexyl-1,3-dioxolane;

2-(4-Chlorophenyl)-2-ethyl-4-methyl-1,3-dioxolane;

5-(5,5-Diethyl-1,3-dioxan-2-yl)-2-fluorobenzenecarbonitrile;

2-(4-Chlorophenyl)-4,5-dihydro-1,3-oxazole;

2-(4-Methylphenyl)-4,5-dihydro-1,3-oxazole.

32. (original) A compound according to claim 31 selected from the group consisting of:

2-(2-hydroxyethoxy)-2-(4-hydroxy-3-methylphenyl)-1,3-dioxolane;

2-(2-hydroxyethoxy)-2-(4-hydroxyphenyl)-1,3-dioxolane;

2-(2-hydroxyethoxy)-2-(3-bromo-4-hydroxy-5-methylphenyl)-1,3-dioxolane;

Methyl 4-[2-(4-fluorophenyl)-1,3-dioxolan-2-yl]butanoate;

4-[2-(4-Fluorophenyl)-1,3-dioxolan-2-yl]butan-1-ol;

2-(4'-Bromophenyl)-2-butyl-1,3-dioxolane;

4-(4-Methoxyphenyl)-1-(3-methylbutyl)-1*H*-pyrazole;

1-(3-Methylbutyl)-4-(4-methylphenyl)-1*H*-pyrazole;

2,6-Dimethoxy-3-[4-(trifluoromethoxy)phenyl]pyridine);

2-[4-(2-Thienyl)phenyl]-1,3-thiazolane;

2-Ethyl-2-(4-methoxyphenyl)-1,3-dioxolane;
2-Hexyl-2-(4-methylphenyl)-1,3-dithiolane;
2-Hexyl-2-(4-methylphenyl)-1,3-dioxolane;
2-(4-Bromophenyl)-2-ethyl-1,3-oxathiolane;
4-(5-Methyl-1,3-oxathiolan-2-yl)benzonitrile;
2-(4-Thien-2-ylphenyl)-1,3-oxathiolane;
4-(5-Methyl-2-octyl-1,3-oxathiolan-2-yl)phenol;
2-Fluoro-5-(5-methyl-1,3-oxathiolan-2-yl)benzenecarbonitrile;
4-Methoxy-4'-(trifluoromethoxy)-1,1'-biphenyl;
2,6-Dimethoxy-3-[4-(trifluoromethyl)phenyl]pyridine;
2-(4-bromophenyl)-2-butyl-4-propyl-1,3-oxathiane;
4-(1,3-Dioxolan-2-yl)benzenecarbonitrile;
2-(4-Chlorophenyl)-2-ethyl-4-methyl-1,3-dioxolane;
5-(5,5-Diethyl-1,3-dioxan-2-yl)-2-fluorobenzenecarbonitrile.

33. (original) A compound according to claim 1 selected from the group consisting of:

2-(2-hydroxyethoxy)-2-(4-hydroxy-3-methylphenyl)-1,3-dioxolane;
4-(4-Methoxyphenyl)-1-(3-methylbutyl)-1*H*-pyrazole;
1-(3-Methylbutyl)-4-(4-methylphenyl)-1*H*-pyrazole;
2-Hexyl-2-(4-methylphenyl)-1,3-dithiolane;
2-Methyl-2-(4-methylphenyl)-1,3-dithiolane;
2-(4-Thien-2-ylphenyl)-1,3-oxathiolane;

4-Methoxy-4'-(trifluoromethoxy)-1,1'-biphenyl;

2,6-Dimethoxy-3-[4-(trifluoromethyl)phenyl]pyridine.

34. (Currently Amended) A method of inhibiting cytokine or biological activity of MIF comprising contacting MIF with a cytokine or biological inhibiting amount of a compound according to ~~any one of claims~~ claim 1 to 33.
35. (Currently Amended) A method of treating, preventing or diagnosing a disease or condition wherein MIF cytokine or biological activity is implicated comprising the administration of a treatment, prevention or diagnostic effective amount of a compound according to claim ~~any one of claims 1, 2 or 3 to 33~~ to a subject in need thereof.
36. (Cancelled)
37. (Currently Amended) A method according to claim 35 ~~or a use according to claim 36~~ wherein the disease or condition is selected from the group consisting of autoimmune diseases, tumours or chronic or acute inflammatory diseases.
38. (Currently Amended) A method ~~or use~~ according to claim 37 wherein the disease or condition is selected from the group consisting of: rheumatoid arthritis, systemic lupus erythematosus, ulcerative colitis, Crohn's disease, multiple sclerosis, psoriasis, uveitis, atherosclerotic vascular disease, asthma and chronic obstructive pulmonary disease.
39. (original) A method according to claim 35 wherein the subject is a human subject.
40. (Currently Amended) A pharmaceutical composition comprising a compound according to claim ~~any one of claims 1 to 33~~ and a pharmaceutically acceptable carrier, diluent or excipient
41. (original) A pharmaceutical composition according to claim 40 further comprising a glucocorticoid.
42. (Currently Amended) A method of treating or preventing a disease or condition wherein MIF cytokine or biological activity is implicated comprising:

administering to a mammal a compound according to claim ~~any one of claims 1 to 33~~ or a pharmaceutically acceptable salt or prodrug thereof and a second therapeutic agent.

43. (original) A method according to claim 42 wherein the second therapeutic agent is a glucocorticoid.
44. (Currently Amended) A method of prophylaxis or treatment of a disease or condition for which treatment with a glucocorticoid is indicated, said method comprising:
administering to a mammal a glucocorticoid and a compound according to claim ~~any one of claims 1 to 33~~ or a pharmaceutically acceptable salt or prodrug thereof.
45. (Currently Amended) A method of treating a steroid-resistant disease or condition comprising:
administering to a mammal a glucocorticoid and a compound according to claim 1 or any one of claims 1 to 33 or a pharmaceutically acceptable salt or prodrug thereof.
46. (Currently Amended) A method of enhancing the effect of a glucocorticoid in mammals comprising administering a compound according to ~~any one of claims~~ claim 1 to 33 simultaneously, separately or sequentially with said glucocorticoid.